

RemarksDrawings

The Examiner has found that Figure 8b in the present application requires a legend such as "Prior Art" because only that which is old is illustrated. In compliance with the Examiner's requirement, the Applicants submit herewith a corrected drawing of Figure 8b. The Applicants respectfully request the Examiner withdraw the objection to the drawings.

Rejection of Claims 1-13 Under 35 U.S.C. § 112

Claims 1-13 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicants regard as their invention. Claims 1, 3, 5-6 and 9-13 have been cancelled herein. Claims 2, 4, 7 and 8 have been amended herein and are believe to particularly point out and distinctly claim the subject matter of the invention. The Applicants respectfully request the rejection of claims 2, 4, 7 and 8 under 35 U.S.C. § 112 be withdrawn.

Rejection of Claim 1 Under 35 U.S.C. § 102(b)

Claim 1 has been rejected under 35 U.S.C. § 102(b) as being clearly anticipated by U.S. Patent 3,235,443 to Greenman et al. ("Greenman"), FR 1399903 ("FR 1399903", or U.S. Patent 5,849,398 to Petrosky ("Petrosky"). The Applicants have cancelled claim 1 from the present application and, therefore, request withdrawal of the rejection of claim 1 as being clearly anticipated by Greenman, FR 1399903 or Petrosky. New independent

claims 14 is patentably distinguishable over Greenman, FR 1399903 and Petrosky for the reasons provided below.

Greenman does not disclose each and every limitation of claim 14. Claim 14 is directed to a method of transparentizing a portion of a paper substrate comprising providing the paper substrate having a first surface and a second surface opposite to the first surface, the paper substrate being substantially planar, and providing a first applicator having a surface with a substantially similar area as the defined area of the paper substrate to be transparentized, wherein the defined area is less than an area of the first surface of the paper substrate. The method further comprises dispensing a first quantity of a transparentizing material to the surface of the applicator, and contacting the surface of the applicator to the first surface of the paper substrate at a desired position of the defined area in the first surface to apply the first quantity of the transparentizing material and to prevent migration of the transparentizing material beyond the defined area. The method also comprises exposing the first surface of the paper substrate to a first heat source such that heat produced by the first heat source impinges the transparentizing material to facilitate penetration of the transparentizing material into the paper substrate, and exposing the first surface of the paper substrate to a first source of ultraviolet radiation such that the ultraviolet radiation cures the transparentizing material.

Greenman discloses a method of transparentizing paper comprised of cotton linter fibers, as an alternative to conventional rag fibers. The method includes beating the cotton linter fibers before the fibers are formed into a sheet or web. The well-beaten fibers provide a clear uniform formation that is essential to producing satisfactory transparentized paper. (col. 3, line 70 to col. 4, line 1 and col. 4, lines 22-26 and lines 36-

39). The method further includes saturating the fibers by conventional means with an aqueous resin emulsion that intrudes between the fibers to form an optically continuous sheet, and to form bonds between fiber-resin-fiber when the resin is cured. (col. 4, lines 5-12 and lines 45-47). After saturation, the method includes drying the sheet on heated drier cylinders, which also cure the resin. (col. 4, lines 63-66).

In contrast to claim 14, Greenman does not disclose exposing the first surface of the paper substrate to ultraviolet radiation supplied by a first source to cure the transparentizing material (aqueous resin emulsion). Rather, Greenman discloses drying the sheet and curing the resin with heat provided by the heated drier cylinders. Claim 14, therefore, is not anticipated by Greenman and patentably distinguishable therefrom.

In addition, new independent claim 14 is patentably distinguishable over FR 1399903. FR 1399903 discloses a method of preparing transparentized copy paper or diazo material including impregnating untransparentized paper of 100% rag with a solution of polypropylene and naphtha, rolling the paper, storing the paper for one week, drying the paper, moistening and sensitizing the paper, drying the paper and exposing the paper to UV and developing the paper in an NH_3 . The method of FR 1399903 includes saturating paper with a transparentizing solution to transparentize entire sheets of paper.

Unlike claim 14 that provides for transparentizing a defined area of a paper substrate, FR 139990 discloses impregnating untransparentized paper with a transparentizing solution. The FR 139990 method does not limit application of the transparentizing solution to a first surface or a second surface of a paper substrate. In addition, the FR 139990 method does not confine the application of the transparentizing solution to a defined area of a paper substrate where the defined area is less than an area



of the first surface of the paper substrate. Nor does the FR 139990 method contact the first surface of the paper substrate with an applicator having a surface substantially similar to the defined area such that the surface of the applicator contacts the first surface of the paper substrate to apply a first quantity of a transparentizing material at a desired position of the defined area in the first surface of the paper substrate, and to prevent migration of the transparentizing material beyond the defined area. In addition, claim 14 is directed to exposing the first surface of the paper substrate to a first heat source to facilitate penetration of the transparentizing material into the paper substrate. The invention of claim 14, therefore, is patentably distinguishable from the method disclosed in FR 139990.

Further, new claim 14 is patentably distinguishable from Petrosky. Petrosky discloses a method of transparentizing a web 9 of a substrate material using a screen coating process whereby one or more mesh screened rollers 21 and 23 dispense transparentizing material onto the web 9 as it is conveyed between one or more rollers to coat one or both surfaces of the web 9. (col. 3, lines 51-66). The web 9 then passes between upper and lower banks of ultraviolet lamps 22 to cure the transparentizing material. (col. 4, lines 63-66). Therefore, in contrast to claim 1, Petrosky discloses a technique using screen printing rollers to coat an entire surface of the web 9 with transparentizing material.

In contrast to claim 14, the method of Petrosky requires conveyance of the web 9 between the screen printing rollers to dispense transparentizing material on one or both surfaces of the web 9. The Petrosky method does not disclose transparentizing a defined area of a paper substrate. Nor does the Petrosky method include applying a first quantity

of a transparentizing material to a surface of an applicator having a substantially similar area as the defined area of the paper substrate to be transparentized, wherein the surface of the applicator contacts the first surface of the paper substrate at a desired position of the defined area in the first surface, to apply the transparentizing material and to prevent migration of the transparentizing material beyond the defined area. The method of claim 14 is patentably distinguishable from the method disclosed by Petrosky.

Amended claims 2, 4, 7 and 8 are dependent on new claim 14 and are patentable for at least the same reasons given above.

Rejection of Claims 2-4 and 6-13 Under 35 U.S.C. § 103(a)

Claims 2-4 and 6-13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenman. Claims 3, 6 and 9-13 have been cancelled from the present application by the foregoing amendment. The Applicants respectfully traverse the rejection of claims 2, 4, 7 and 8 as being unpatentable over Greenman. Claims 2, 4, 7 and 8 are dependent on new claim 14, and are patentable over Greenman for at least the reasons given above with respect to claim 14. The rejection of claims 2, 4, 7 and 8 under 35 U.S.C. § 103(a) should be withdrawn.

Rejection of Claims 2-13 Under 35 U.S.C. § 103(a)

Claims 2-13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over FR 1399903. Claims 3, 5, 6 and 9-13 have been cancelled from the present application. The Applicants respectfully traverse the rejection of claims 2, 4, 7 and 8 as being unpatentable over FR 1399903. Claims 2, 4, 7 and 8 are dependent on new claim

14, and are patent over FR 1399903 for at least the reasons given above with respect to claim 14. The rejection of claims 2, 4, 7 and 8 under 35 U.S.C. § 103(a), therefore, should be withdrawn accordingly.

Rejection of Claims 3-4, 8, 10-11 and 13 Under 35 U.S.C. § 103(a)

Claims 3-4, 8, 10-11 and 13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Petrosky. Claims 3, 10-11 and 13 have been cancelled from the present application by the foregoing amendment. The Applicants respectfully traverse the rejection of claims 4 and 8 as being unpatentable over Petrosky. Claims 4 and 8 are dependent on new claim 14 and are patentable over Petrosky for at least the reasons given above with respect to claim 14. Accordingly, the rejection of claims 4 and 8 should be withdrawn.

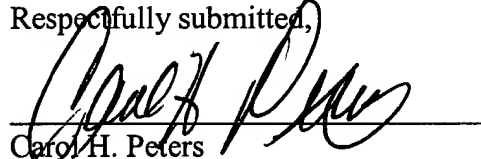
New Claims 14-30

The Applicants have added new claims 14-30 to the present application. Claims 14-30 do not add new subject matter to the application and have proper antecedent basis. As noted above, new independent claim 14 is patentable for at least the reasons given above with respect to the cited prior art. Claims 15-27 are dependent on claim 14 and are patentable for at least the reasons given above. In addition, new independent claim 28 is patentable because the limitations recited in claim 28 have a similar basis for patentability as claim 14. Claims 29-30 depend from claim 27 and are patentable for at least similar reasons.

To further prosecution of the present application, the Applicants have cancelled claims 3, 5, 6 and 9-13 from the application without prejudice as to the subject matter contained therein. In addition, the Applicants have amended claims 2, 4, 7 and 8. The claim amendments do not add new subject matter to the application and have proper antecedent basis. Claims 2, 4, 7, 8 and 14-30, therefore, are pending in the present application. The Applicants respectfully request the Examiner consider the foregoing amendments and enter the amendments into the record.

Based upon the foregoing amendments and discussion, the present application is believed to be in condition for allowance, which action is respectfully requested. Should the Examiner have any questions concerning this response, she is invited to telephone the undersigned at the number provided.

Respectfully submitted,



Carol H. Peters

Registration No. 45,010

Mintz, Levin, Cohn, Ferris

Glovsky and Popeo, P.C.

One Financial Center

Boston, MA 02111

Attorneys for Applicant

T: 617/348-4914

F: 617/542-2241

Date: 6/24/03

TRA 1799876v1